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THE MORE IMPORTANT ENTOMOLOGICAL RECORDS IN THE UNITED STATES FOR

MARCH 1936

Heavy infestations by cutworms were reported from Colorado and Arizona.

Throughout the northern part of the chinch bug belt this insect suffered winter mortality as high as 50 percent in parts of Iowa, Illinois, and Indiana. In the States farther south mortality was considerably lower; however, there are sufficient bugs over most of the infested territory to cause serious damage if favorable spring weather prevails.

Green bug appeared during the third week in March in Comanche County, Okla.

Heavy infestations of hessian fly are reported from central Missouri southward. Similar infestations are reported from southeastern Kansas and parts of Oklahoma.

Corn ear worm was active throughout the winter in the Brownsville, Tex., district and by the middle of March was appearing in numbers in that region. By the third week in the month egg laying was observed in the upper coastal section of the State.

Eggs of the European red mite are unusually numerous in the New England, Middle Atlantic, and East Central States.

Green apple aphid is reported as generally abundant in the New England and Middle Atlantic States. Heavy infestations of rosy apple aphid are forecast from Virginia and West Virginia, as eggs are very numerous.

High mortality of San Jose scale is reported in the East Central States, where very severe subzero weather occurred the past winter.

High mortality of codling moth occurred in the East Central States.

Although weather conditions have been favorable for the emergence from hibernation of the plum curculio in the peach section of Georgia, practically none were observed in the orchards in the vicinity of Fort Valley up to the

time of petal fall the third week in March.

The vegetable weevil was found this spring in Texas 300 miles west of any known previous infestation and also at Jacksonville, Fla., which is east of the known infested area in that State.

High winter mortality of the Mexican bean beetle was reported from Delaware and Ohio.

Heavy infestation of the cabbage aphid was recorded from Mississippi, with light infestations northward through Georgia to southern Virginia.

From Louisiana to South Carolina boll weevils were still in hibernation at the end of March and present indications point to a low survival in this region. In Texas, however, they were active during the entire month.

Heavy emergence of cotton flea hopper is reported from Texas.

Pink bollworm emergence began the third week in February in the State of Durango, Mexico. This insect has thus far carried over in rather large numbers in the soil in the vicinity of Presidio, Tex. All cotton fields examined in Puerto Rico were found to be lightly infested with this pest.

Fall cankerworm was generally prevalent throughout New England and the Middle Atlantic States, and spring cankerworm was active during the latter half of the month from Iowa and Missouri southward to Kansas and Oklahoma.

Observations made this spring indicate that the screw worm fly was not able to pass the winter north of the southern two-thirds of Florida and the southern third of Texas.

GENERAL FEEDERS

WHITE GRUBS (Phyllophaga spp.)

Louisiana. B. A. Osterberger (March 21): The first June bug flight at Baton Rouge of this season was on the night of March 8. It consisted of P. calceata Lec. and P. congrua Lec. Only a few have been noticed in flight since that time.

Kansas. H. R. Bryson (March 23): Excavations reveal the fact that white grubs are not so abundant at Manhattan as might be expected following the beetle year. A number of dead grubs have been found within the first 6 inches of soil and appear to have been killed by low temperatures.

Texas. F. L. Thomas (March 28): P. calceata is active at present; on March 23, 327 were collected at light. P. crassissima Blanch., P. hirtiventris Horn, P. praetermissa Horn, P. rubiginosa Lec., and P. profunda Blanch. are also active.

JAPANESE BEETLE (Popillia japonica Newm.)

Pennsylvania. R. M. Baker (March 24): We are planning to do some soil-treatment work in the city of Erie again this year with the cooperation of the Federal Government, starting April 13. In this area we are trapping fewer beetles each year but these few are spreading over a gradually widening territory within the city limits.

CUTWORMS (Noctuidae)

Colorado. G. M. List (March 17): During the last few days the army cutworm (Chorizagrotis auxiliaris Grote) has been reported as damaging wheat in Boulder, Weld, and Larimer Counties.

Arizona. C. D. Lebert (March 24): Several species of cutworms are giving trouble to lettuce and melon growers. Some damage has occurred also on residential flower beds. The predominant species is Agrotis ypsilon Rott.

MONARCH BUTTERFLY (Danaus menippe Hbn.)

Florida. H. T. Fernald (March 21): The monarchs have entirely disappeared at Orlando. They have probably laid their eggs and died and there should be nearly grown larvae or pupae now, as the fresh adults normally appear about April 1.

COMMON RED SPIDER (Tetranychus telarius L.)

Mississippi. C. Lyle and assistants (March 25): Heavy infestation of red spider on lilies in a greenhouse at Moss Point was observed on March 17. The pest is fairly abundant on arborvitae in Lincoln and Pike Counties and is present on Camellia japonica at Foplarville and Picayune. A rather heavy infestation was noticed in a satsuma orchard in Harrison County on March 14.

Louisiana. B. A. Osterberger (March 21): The common red spider is numerous on azalea and arborvitae.

Missouri. L. Haseman (March 24): The red spider was a very serious pest in a number of central- and northwestern-Missouri orchards and a few southwestern-Missouri orchards during the dry July of 1935. Unbelievable numbers went into resting or hibernating conditions in the soil, in the litter, and under the bark scales on the trees in these orchards, but before winter set in, practically all in the soil were dead and in midwinter most of those in leaf coverage and in the crotches of trees were also dead. Considerable numbers, however, survived under the bark scales and freezing experiments conducted recently indicate that the low temperature of the winter did not seriously harm those that escaped the effects of moisture.

CEREAL AND FORAGE-CROP INSECTS

WHEAT

CHINCH BUG (Blissus leucoconterus Say)

General. F. N. Ammand (March 11): Preliminary reports on mortality of chinch bugs in the seriously infested area of the Corn Belt States indicate that average mortalities as high as 50 percent occur in certain counties in Iowa, Illinois, and Indiana. Mortality is considerably lower in Missouri, Kansas, and Oklahoma. Even with the mortality indicated at present, there are sufficient bugs to cause serious damage should spring weather be favorable.

Indiana. C. Benton (March 20): The finding of forty additional samples of bunch grasses in Tippecanoe County on February 27 and March 16 substantiates last month's report of about 50 percent mortality of hibernating chinch bugs.

Illinois. W. F. Flint (March 20): Recent general surveys of the chinch bug infested area have shown that the bugs came through the winter with mortality of approximately 20 to 25 percent. Our examinations to date indicate that there are about 80 percent as many bugs now in hibernation as there were in the spring of 1934. There are enough bugs to cause serious damage should the weather of the late spring be dry.

Correction.--Chinch bug mortality in Indiana as reported in the Insect Pest Survey Bulletin dated March 1, 1936, p.5, should read "from 19 to 98 percent."

Iowa. H. E. Jaques (March 25): Chinch bugs are coming out of hibernation in large numbers in southeastern Iowa.

Missouri. L. Haseman (March 24): Notwithstanding the severe cold, the chinch bugs have wintered with only 10 to 20 percent mortality in the highest mortality counts. Some of our counts in the recent survey show from 500 to 1,000 bugs per bunch grass clump approximately 6 inches in diameter, but generally the numbers of bugs are fewer than they were a year ago. Over most of the corn-growing section of the State there are enough hibernating bugs to cause serious damage should we have a dry spring and summer.

Kansas. H. R. Bryson (March 25): No flight of chinch bugs has been observed. Counts reveal the fact that the winter survival was high. The number in hibernation showed moderate abundance.

GREEN BUG (Toxoptera graminum Rond.)

Kansas. H. R. Bryson (March 25): No green bugs found by E. G. Kelly in southern Kansas.

Oklahoma. C. F. Stiles (March 24): The first report of green bugs reached me on March 21 from Comanche County. A few spots of injury are showing up in volunteer oats that were not killed during the winter.

HESSIAN FLY (Phytophaga destructor Say)

Missouri. L. Haseman (March 24): The hessian fly situation, as shown by a State survey that has just been completed, indicates that from the tier of counties along the Missouri River south the infestation is serious, practically all of the early seeded fields showing from 50 to 90 percent of the plants infested, and, in many cases, with fields seeded on the previously announced safe-seeding date showing 10 percent or more of the plants infested. Many of the worst infested fields have already been reseeded to oats and other fields will undoubtedly be abandoned later. In central Missouri we find considerable numbers of dead "flaxseeds", but the mortality seemingly is not due to parasitization. We do not believe, however, that the winter, with the fine blanket of snow, is responsible for their death.

Kansas. H. R. Bryson (March 26): E. G. Kelly reports hessian fly abundant with considerable damage to wheat in the 25 counties in southern and eastern Kansas.

Oklahoma. C. F. Stiles (March 24): The center of infestation seems to be around Billings, on the Noble and Garfield County line, in the heart of our best wheat-growing section. Some fields last fall had 60 percent infestation. Scattering reports have also been received from nearby counties stating that hessian flies are worse than they have been for a number of years.

CORN

CORN EAR WORM (Heliothis obsoleta Fab.)

Texas. F. L. Thomas and assistants (March 28): Examinations for eggs or adults of the cotton boll worm were made beginning March 12 in the upper coastal section of Texas, but none were found until the 23d. On that date 400 plants of alfalfa examined at three locations yielded 51 eggs; 4 adults were taken from 400 sweeps made on the same date; 15 eggs and 2 larvae were found on 200 stalks of corn 6 inches high. Near College Station on March 10, 2 eggs were found out of about 1,500 alfalfa plants examined; on March 12, 500 plants were examined and 1 egg found; and 8 eggs were found on 3,000 alfalfa plants examined on March 23 and 24.

F. A. Glick (March 17): Corn ear worm is quite abundant now around Brownsville, having appeared on March 15, both in the field and at lights. We are making infestation counts of larval damage to young corn.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Rhode Island. A. E. Stene (March 27): The corn borer is not unusually abundant, but little mortality is showing up among those that went into winter quarters last fall.

ALFALFA

ALFALFA WEEVIL (Hypera postica Gyll.)

California. A. E. Michelbacher (March 20): The alfalfa weevil is doing very little damage. Injury is noticeable in only one field, located at Irvington, which is ready to be harvested, and it is expected that damage will cease as soon as it is cut. Over much of the San Francisco district and the San Joaquin Valley the alfalfa is reaching maturity and harvest has already started in a number of fields. In the San Francisco Bay area parasitization by Bathyplectes curculionis Thoms. continues to be heavy, but no reports later than March 3 are included because the rearing records beyond this date are not yet completed. Very few of the Bathyplectes reared since February 26 are of the overwintering form.

FRUIT INSECTS

APPLE

APPLE APHIDS (Aphididae)

Vermont. H. L. Bailey (March 25): Eggs of the green apple aphid (Aphis pomi DeG.) are moderately abundant at Shelburne and Charlotte, in Chittenden County.

Connecticut. P. Garman (March 23): Aphid eggs are abundant in nearly every orchard visited in New Haven County. Those hatched so far in the laboratory are of the green apple aphid.

New York. P. J. Parrott (March 19): Aphid eggs are plentiful in western New York.

Pennsylvania. H. E. Hodgkiss (March 24): Aphid eggs are generally abundant throughout the State.

Virginia. J. J. Schoene (March 25): The newly hatched apple aphids were found on apple buds in the Roanoke section by March 14 and in the Crozet section by March 19. It appears now from the few observations made that a heavy infestation of the rosy aphid (Anuraphis roseus Baker) will occur in Virginia orchards this year. The insects were observed on the foliage in large numbers last fall, also a few have been hatched prematurely by taking the eggs in the house.

West Virginia. L. M. Feairs (March 28): I have reports from several sections, notably the Eastern Panhandle and Monongalia County, that aphid eggs are extremely abundant on apple. Eggs hatched in the laboratory prove to be about 40 percent green aphid (A. pomi) and 30 percent rosy aphid (A. roseus).

Michigan. Ray Hutson (March 25): Aphid eggs are very plentiful throughout the fruit belt along Lake Michigan.

Iowa. H. E. Jaques (March 25): Some apple trees show a rather heavy infestation of aphid eggs.

Utah. C. J. Sorenson (March 19): Eggs of the green apple aphid and the rosy apple aphid are common in apple orchards in Boxelder County.

Oregon. B. G. Thompson (March 17): Rosy apple aphid at Monroe, the first being found on March 17.

LEAFHOPPERS (Erythroneura spp.)

Missouri. L. Haseman (March 24): The two common species of apple leafhoppers, the red-spotted (E. maculata Gill.) and the red-striped (E. obliqua Say) have survived the severe winter, though recent counts indicate between 40 and 50 percent mortality in leaf and grass coverage in the orchards at Columbia. These leafhoppers for the past two seasons have been very serious and we are hoping that the winter mortality may somewhat lighten up their numbers for the coming summer.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

New York. F. J. Farrott (March 19): San Jose scale is common in many poorly sprayed and neglected orchards in western New York.

Virginia. W. J. Schoene (March 25): Examinations at various points in the State indicate that more San Jose scale is present than for several years.

Georgia. O. I. Snapp (March 3): Thirty-three thousand scales from unsprayed peach trees at Fort Valley were counted at intervals during the winter to determine the percentage of live scale in an orchard being used for experiments. The results are given in the following table.

Date	: : Dead scales :	: : Living scales :
	: : <u>Number</u> :	: : <u>Number</u> : <u>Percent</u> :
January 13 to 21	: 7,432	: 23,163 : 75.71
February 13	: 241	: 359 : 59.83
March 3	: 704	: 1,096 : 60.89

Live scale on unsprayed peach trees at Fort Valley decreased 15 percent between January 13 and March 3. This is believed to be due chiefly to the twice-stabbed ladybeetle (Chilocorus bivulnerus Muls.), rather than to cold weather, as we have shown heretofore that a minimum temperature of 16° F. will not kill the San Jose scale on peach trees in Georgia. The minimum temperature recorded at Fort Valley during the winter was 15°; however, this has been one of the coldest winters on record, not because of the unusually low temperatures but owing to a number of long periods with daily minimums below 32°.

C. H. Alden (March 23): There is good control of the scale in well-sprayed peach and apple orchards at Cornelia, but from moderate to severe infestations have been observed in unsprayed or poorly sprayed orchards.

Ohio. T. H. Farks (March 25): An examination made March 25 showed a high mortality at Columbus. Winter temperature reached -17° F., and only a very few of the insects survived.

J. S. Houser (March 28): A mortality record was made of scale taken from vigorous apple wood moderately infested at Sandusky. Of 500 individuals in the overwintering stage examined only 9 percent were alive. The condition of the scale varied greatly from twig to twig. On one lot of twigs only 1 percent of the scale was alive, whereas on another lot 23 percent were alive. The minimum temperature in this locality as reported by Mr. G. A. Runner was -12° F.

Illinois. W. P. Flint (March 20): The weather of the past winter caused a very high mortality of San Jose scale. South of Carbondale from 10 to 20 percent of the scale is still alive. North of Carbondale the kill was very high on the west side of the State, being from 97 to 98 percent except on parts of the trees protected by snow; it was slightly less on the east side. In the area north from St. Louis more than 99 percent of the scale was killed.

Michigan. Ray Hutson (March 25): San Jose scale is very spotted in the fruit districts along Lake Michigan. There are places where trees not sprayed regularly for the scale show live scales.

Alabama. J. M. Robinson (March 21): San Jose scale is moderately abundant on peach trees.

Missouri. L. Hasenan (March 24): This pest during the past summer built up rapidly in many sections of the State, encrusting many young fruit trees. The subzero temperatures and the prolonged cold have been very beneficial in killing off this pest. Recent counts from the latitude of Columbia and to the north indicate that on the most exposed trees above the snow line the mortality is nearly 100 percent, with some counts taken on sheltered places indicating sufficient carry-over to enable the pest to build up again this summer if conditions favor it. Much of the dormant spraying planned for northern Missouri will probably not be done in view of the effective kill by the cold weather.

Oklahoma. C. F. Stiles (March 24): A few of the orchard men report that the severe winter has killed a large percentage of the scale in the vicinity of Oklahoma City.

CODLING MOTH (Carpocapsa pomonella L.)

Georgia. C. H. Alden (March 23): The codling moth is still in hibernation at Cornelia; no pupation to date.

Ohio. T. H. Parks (March 25): An examination made yesterday shows that most of the overwintering codling moth larvae at Columbus were killed by the low winter temperature. The lowest reached was 17° below zero. Below-zero temperatures were recorded during 10 days.

Missouri. L. Haseman (March 24): The number of codling moth larvae going into hibernation last fall was the smallest for many years and, with temperatures ranging from nearly 20° below in the northern part of the State to from 10° to 12° or 15° below in central and southern Missouri, we have had a considerable kill of those hibernating above the snow line. Recent examinations, however, show that in central Missouri the winter mortality has not been 100 percent by any means, for we are finding considerable numbers of live larvae on the tree trunks above the snow line.

Colorado. G. M. List (March 17): Preliminary examinations at Fort Collins indicate about an average winter mortality of codling moth larvae. With the large population that went into hibernation in most sections of the State, there will be a heavy flight of moths if the weather continues favorable.

Utah. C. J. Sorenson (March 19): A high percentage of codling moth larvae have survived the winter, judging from rather limited investigations in Box Elder County.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

New York and Delaware. E. F. Felt (March 24): Egg masses of the apple tent caterpillar are very abundant in many localities, although indications are that the outbreak will be less general than that of last year. Many egg masses are being collected by Boy Scouts and school children in various localities in New York State and New England. The egg masses appear to be less abundant in eastern Pennsylvania and in the vicinity of Wilmington, Del.

Vermont. H. L. Bailey (March 25): Tent caterpillar egg masses are moderately abundant in the southern part of the State; less so in northern sections.

Connecticut. W. E. Britton (March 23): Egg clusters are very abundant in some localities on wild cherry and apple throughout the State; in other localities they are less prevalent than in 1935.

Pennsylvania. H. E. Hodgkiss (March 24): There is a rather general abundance of the eggs of the eastern tent caterpillar.

Arkansas. W. J. Baerg (March 17): About one-third of the egg masses are hatching at Fayetteville today, the others hatched earlier; hatching probably began about March 13. Egg masses are moderately common, but not as abundant as they have been in recent years.

FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Nebraska. M. H. Swenk (March 20): Reports of infestations of fruit and shade trees with the flat-headed apple tree borer came in during the winter and have continued up to date.

Kansas. H. R. Bryson (March 26): Flat-headed apple tree borers are very abundant in apples and other trees throughout the State. Infestation is due to the weakened conditions of the trees, resulting from drought and red spider or aphid injury during the past 3 years.

FLOWER THRIPS (*Frankliniella* spp.)

California. S. Lockwood (March 20): Two closely related species of thrips, *F. tritici californica* Moul. and *F. minuta* Moul., are appearing in greater numbers than usual. Reports coming to the office indicate that they are very abundant in the blossoms of stone fruits.

EUROPEAN RED MITE (*Panatetranychus pilosus* C. & F.)

Vermont. H. L. Bailey (March 24): Eggs of the European red mite are moderately abundant in orchards in Chittenden County.

Connecticut. P. Gernan (March 23): Eggs present in most of the orchards visited in New Haven County.

New York. P. J. Parrott (March 19): In the western part of New York, eggs of the red mite are not difficult to find on prunes and apples.

Pennsylvania. H. E. Hodgkiss (March 24): Eggs of the European red spider are more abundant than they have been for 2 or 3 years.

Michigan. Ray Hutson (March 25): European red mite is hatching at East Lansing.

CLOVER MITE (*Bryobia praetiosa* Koch)

Utah. C. J. Sorenson (March 19): Infestations of brown mite eggs in cherry and apple orchards in Box Elder County frequently encountered.

PEACH

PLUM CURCULIO (*Conotrachelus nenuphar* Hbst.)

Georgia. O. I. Snapp (March 20): An unusual curculio situation exists at Fort Valley. Although petal fall of the first blooming varieties of peaches has occurred and during one period in March the maximum temperature was above 70° for 6 consecutive days, with a maximum temperature of 81° for March, practically no curculios have appeared from hibernation. Only four adults were caught after considerable jarring of various orchards on March 16 and none were taken by jarring on March 19. A number of peach growers report similar results from jarring

this week. (March 26): Adult curculios are now appearing from hibernation in numbers. An average of 0.9 beetle per tree was taken during jarring operations of outside rows of peach trees this morning. The insect is unusually late appearing from hibernation as peaches are now beginning to split the shuck. A mean of 60° F. or above was recorded on March 3, 4, 5, 9, 10, and 11. Full bloom occurred on March 10. A mean temperature above 60° F. was recorded on March 23, 24, 25, and 26, with maximums on those dates of 75, 80, 78, and 84, respectively.

C. H. Alden (March 24): Plum curculio still in hibernation at Cornelia. Jarred trees were in full bloom on March 23 but not a single curculio was caught.

T. L. Bissell (March 30): Today we jarred the first weevil of the season from wild plum at Experiment. We have been jarring 21 peach trees and some plum bushes every other day since March 13 and this is the first curculio. The trees were beginning to bloom March 13.

LESSER PEACH BORER (Aegeria pictipes G. & R.)

Georgia. O. I. Snapp (March 20): Emergence of spring-brood adults at Fort Valley has been taking place since March 1. Pupae nearly matured were recorded on February 25.

FEAR

FEAR THRIPS (Taeniothrips inconsequens Uzel)

Oregon. S. C. Jones (March 21): Fear thrips were found in the Umpqua Valley on March 13 and in the Willamette Valley on March 21.

RASPBERRY

SNOWY TREE CRICKET (Oecanthus niveus DeG.)

Utah. G. F. Knowlton (March 17): Red raspberries and blackcaps are heavily infested with snowy tree cricket eggs in a number of patches at Willard and Perry in Box Elder County.

GRAPE

GRAPE LEATHOPTER (Erythroneura cones Say)

Utah. G. F. Knowlton (March 9): Grape leathoppers have survived in unusually large numbers at Logan and are present and active on warm days in the vicinity of all grape patches and Virginia creepers examined to date. (March 2): Adult females and some males of E. cones ziczac Walsh and E. elegans McAtee are emerging from hibernation.

CITRUS

GREEN CITRUS APHID (Aphis spiraeicola Patch)

Florida. J. R. Watson (March 19): A. spiraeicola is rather scarce again this spring, owing to unfavorable weather conditions during the winter, which prevented any tender growth on citrus. The Chinese ladybeetle, Leis conformis Bdv., emerged in large numbers from apparent hibernation during the first part of March and is doing very effective work in controlling this aphid in the northern part of Orange County. It has considerably extended its range.

CITRUS WHITEFLY (Dialeurodes citri Riley & How.)

Florida. J. R. Watson (March 19): Whiteflies have commenced to emerge but in small numbers.

H. T. Fernald (March 31): The adults of the citrus whitefly are now beginning to appear at Orlando. It is too soon to tell whether they will be very abundant.

Mississippi. C. Lyle and assistants (March 25): Specimens of the citrus whitefly on Cape jasmine were received from a correspondent at Anguilla on March 9. Medium damage to this flower has been observed at Goodman. Citrus, Cape jasmine, and other bushes at Moss Point have been completely covered with the black fungus that follows whitefly infestations. Infestations on citrus have been reported from Pearl River, Jackson, and Harrison Counties.

CALIFORNIA RED SCALE (Chrysomphalus aurantii Mask.)

Arizona. C. D. Lebert (March 24): Only one recurrence of California red scale was found this spring in Tucson on ornamentals that were treated the previous season. The scale was observed on March 21 on a rosebush in a yard in Tucson.

FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Mississippi. J. E. Kislanke (March 25): Leaves of Ligustrum infested with the Florida red scale were sent to this office from Wiggins on March 10.

CITRUS THRIPS (Scirtothrips citri Moul.)

Florida. J. R. Watson (March 19): Due to the unseasonably cold winter, which kept woods and other host plants from blossoming, thrips are very scarce this spring. The average is only two or three in a citrus bloom. Citrus bloom has been very heavy which, of course, has also helped to bring down the average infestation per blossom.

FLOWER THRIPS (Frankliniella tritici Fitch)

Arizona. C. D. Lebert (March 24): The flower or grain thrips is abundant on flowers and on citrus. A few of the citrus growers were applying the first dust from March 15 to 20.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida. J. R. Watson (March 19): With the coming of warmer weather, rust mites on Valencias and other citrus fruits still on the trees have necessitated considerable dusting and spraying.

CITRUS RED MITE (Paratetranychus citri McG.)

Florida. J. R. Watson (March 19): The purple mite is rather common on citrus.

T R U C K - C R O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Klug)

Georgia. T. L. Bissell (March 2): Larvae abundant on patch of turnip at Tifton. Last year this weevil was injurious in the same place on turnip, rape, and radish. (March 28): Pupae of the vegetable weevil, mostly dead from the cold, were found in abundance in the soil about turnips at Clarkston, De Kalb County. A few half-grown larvae were feeding on spinach.

Florida. E. W. Berger and G. B. Merrill (March 23): Found on turnip roots at Jacksonville.

Alabama. J. M. Robinson (March 21): The vegetable weevil has been pupating during the month at Auburn. Many of the adults are well formed. None has yet emerged from the soil.

Mississippi. C. Lyle and assistants (March 25): The vegetable weevil has done considerable damage to turnips and carrots in the field and to tomatoes in coldframes in Coviah and Lincoln Counties, and from light to severe injury to turnips, cabbage, and other young plants in Leflore, Holmes, Yazoo, Attala, and Leake Counties. Only light infestations have been reported from Jackson and Harrison Counties, and fewer complaints have been received from Pearl River County than at the same time in recent years.

Texas. F. L. Thomas (March 30): The vegetable weevil has been found causing injury in Bell, Bastrop, and Brazoria Counties, the former about 300 miles from any known previous infestation.

California. S. Lockwood (March 27): The vegetable weevil was found infesting celery in the Chula Vista (San Diego County) area during the latter part of February. In some celery fields grown close to citrus orchards with mallow or mustard cover crops, the loss was severe. In other areas the damage was much less. In all cases the relationship between the number of weevils in the celery and the amount of preferred plants, such as mallow and mustard, could be definitely seen.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Georgia. O. I. Snapp (March 16): The 12-spotted cucumber beetle is about as abundant as usual at this time of the year on peach trees at Fort Valley.

T. L. Bissell (March 2): Occasional adults feeding on turnip, vetch, lupine, and cabbage plants at Tifton. (March 16): The first beetles out of hibernation were seen on February 28 on Austrian peas at Experiment. On March 12 they were common on vetch and, beginning with that date, they have been abundant in peach blossoms. Very few males have been found. Eggs have been laid regularly since February 29 in the insectary.

Mississippi. C. Lyle and assistants (March 25): The 12-spotted cucumber beetle has been numerous in some plantings of turnips at Meridian. It was also injuring turnips at Durant on March 12 and was observed generally over Jackson and Harrison Counties.

Louisiana. B. A. Osterberger (March 21): Twelve-spotted beetles have been seen in an alfalfa field at Baton Rouge but not in large numbers.

SOUTHERN GREEN STINKBUG (Nezara viridula L.)

Florida. J. R. Watson (March 19): The southern green stinkbug hibernated more generally than during most winters. It is now emerging but apparently in smaller numbers than usual.

FALSE CHINCH BUG (Nysius ericae Schill.)

Utah. G. T. Knowlton (March 16): False chinch bugs are now active on warm days in Cache Valley.

CHANGA (Scapteriscus vicinus Scudd.)

Florida. J. R. Watson (March 19): Mole crickets are about as usual in truck fields and gardens. As usual, the most destructive is the changa.

SEED CORN MAGGOT (Hylenia cilicrura Rond.)

Virginia. H. G. Walker (March 26): Adults of the seed corn maggot are rather abundant in the fields around Norfolk.

POTATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Mississippi. C. Lyle and assistants (March 25): Colorado potato beetle observed in gardens at Senatobia on March 19. Beetles have not been noticed around Jackson. The first adult Colorado potato beetle was observed on March 14 before any potatoes were showing above the ground in the vicinity of Leland.

BEANS

MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

Delaware. L. A. Stearns (March 18): At Newark the mortality of 20,000 Mexican bean beetles placed in hibernation cages with suitable cover and intended for test purposes was 100 percent. Usually better than 50 percent survive under such conditions.

Ohio. N. F. Howard and H. C. Mason (March 23): The survival of the Mexican bean beetle in cages at Columbus was 2.14 percent on March 12, which is the lowest it has been for a number of years. The survival was 5.57 percent during the same period in 1935 and about 33 percent in 1934.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

Mississippi. H. Gladney (March 25): A few banded cucumber beetles observed on some early planted beans in Jackson County.

PEAS

PEA APHID (Illinoia irisi Kalt.)

Virginia. H. G. Walker (March 26): The pea aphid, which was unusually scarce during the winter, is rapidly becoming moderately abundant on alfalfa at Norfolk.

Mississippi. H. Gladney (March 25): A light infestation of the pea aphid was noticed on a planting of English peas in Harrison County.

Kansas. H. R. Bryson (March 26): Pea aphids have not been observed in alfalfa fields to date.

Oregon. K. I. Gray (March): Found hatching on Scotch broom on March 1 at Astoria.

CABBAGE

CABBAGE APHID (Brevicoryne brassicae L.)

Virginia. H. G. Walker (March 26): In general, cabbage aphids and the spinach aphid (Myzus persicae Sulz.) are very scarce in the Norfolk area; however, a 15-acre field of young cabbage plants was found to be very heavily infested with the cabbage aphid.

Georgia. T. L. Bissell (March 2): The cabbage aphid is moderately abundant on young plants ready for shipment, but it does not appear to be injurious.

Mississippi. C. Lyle and assistants (March 25): Heavy infestations of the cabbage aphid at Lexington, Sallis, and Lucedale. This insect is rather numerous in cabbage beds at Aberdeen. It caused medium injury to cabbage in Lincoln and Cornish Counties, and was observed on cabbage and collards in Jackson and Harrison Counties during the month.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Georgia. T. L. Bissell (March 16): A few adults, the first of the season, were seen on collard at Experiment today.

Alabama. J. M. Robinson (March 21): The harlequin cabbage bug is beginning to appear on greens.

Mississippi. D. W. Grimes (March 25): Several specimens of the harlequin cabbage bug were collected from turnips at McAdams on March 12.

Louisiana. B. A. Osterberger (March 3): Only a very few adults noticed in an old cabbage field at Baton Rouge.

Texas. F. L. Thomas (March 16): The county agent at El Paso reports that farmers are complaining of these insects damaging young cabbage.

IMPORTED CABBAGE WORM (Ascia rapae L.)

Virginia. H. G. Walker (March 31): Large numbers of the imported cabbage butterflies appeared at Norfolk on March 28, and have been quite abundant since that date.

Mississippi. C. Lyle and assistants (March 25): The imported cabbage butterfly was observed on March 20 in rather large numbers in gardens at Poplarville and in greenhouses at Aberdeen during this month.

Louisiana. B. A. Osterberger (March 21): The cabbage butterfly has been active during the warmer parts of the entire winter. Eggs are now very numerous on cabbage.

CABBAGE LOOPER (Autographa brassicae Riley)

Mississippi. L. J. Goodgame (March 25): The cabbage looper is present in greenhouses around Aberdeen.

Louisiana. B. A. Osterberger (March 21): Only a few cabbage looper eggs have been noticed.

CELERY

GREENHOUSE LEAF TIER (Phlyctaenia rubigalis Guen.)

Florida. C. B. Wisecup (March 24): Field examinations in the Sanford-Oveido area during February disclosed only an occasional adult of the celery leaf tier, with no larval damage apparent to the maturing celery.

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Texas. F. L. Thomas (March 28): The turnip plant louse is causing considerable injury to young turnips following a dry spell at College Station; also injurious at Hitchcock, according to J. N. Roney.

STRAWBERRY

AN APHID (Capitonhorus fraxifolii Chll.)

Oregon. D. C. Mote (March): Wingless adults and young observed on strawberry plants at Corvallis on March 17 by W. D. Edwards.

COMMON RED SPIDER (Tetranychus telarius L.)

Texas. J. N. Roney (March 16): Severe infestations have developed in Galveston County.

Virginia. H. G. Walter (March 26): Red spiders continue to be rather abundant in some strawberry fields in the Norfolk district, while in other fields they are very scarce.

SUGAR BEETS

BEET LEAFHOPPER (Eutettix tenellus Bak.)

Texas. F. L. Thomas (March 28): Specimens of the beet leafhopper, infesting spinach, were sent in from Winterhaven by S. L. Jones. Specimens of the leafhopper, infesting garden beets being grown for seed, were also sent in from El Paso.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

South Carolina. F. F. Bondy (March 27): It seems that the boll weevil infestation in the vicinity of Florence will be light this spring. We have not found a single active weevil in the hibernation cages, and all we found in the moss were dead. We have been examining wood trash during the week and have found two live and four dead weevils.

Mississippi. E. W. Dunnam (March 21): No weevils have been seen or reported to date.

Louisiana. R. C. Gaines and assistants (March 28): No boll weevils have been taken on flight screens so far this month.

Texas. R. W. Moreland (March 28): Weevils have been active in hibernation cages at College Station during the entire month. On March 4, 84 were observed in the cages.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. A. J. Chapman (March 7): Both surface-trash and soil examinations show a heavy winter survival of the pink bollworm.

Mexico. C. S. Rude (March 3): Moth emergence started on February 21 at Tlahualilo, Durango. To date no emergence has been observed in any of the plots where irrigation has been given. (March 10): The emergence from the hibernation cages is about the same as in other years. (March 17): The emergence from the hibernation tests is building up steadily. To date the principal emergence has been from the treatments where no irrigation was given.

Fuerto Rico. (L. C. Fife (March 21): All cultivated cotton fields in Boqueron were found infested but no field exceeded 10 percent. Maga (Montezuma speciosissima) was found lightly infested at Camuy, Quebradillas, and Aguadilla.

COTTON FLEA HOPPER (Psallus seriatus Reut.)

Texas. K. I. Ewing and R. L. McGarr (March 21): The first flea hopper nymphs of the season were observed at Port Lavaca on March 5 and the first emergence from hibernation cages occurred on March 6. This is 3 weeks later than the average date of emergence for the past 3 years. The warm weather during the last 2 weeks has been favorable for emergence, and 5,975 flea hopper nymphs have emerged from the 3,800 plants under observation. This emergence is about twice as great as was observed last year on the same date. (March 28): Nymphs continue to emerge from the hibernation cages; however, there was no rapid increase in emergence during the past week.

R. W. Moreland (March 14): H. J. Reinhard reports that the first nymph emerged in cages at College Station on March 6. (March 21): R. H. Fletcher reported one nymph on evening primrose at College Station on March 19.

Arizona. T. F. Cassidy and W. A. Stevenson (March 23): At weekly intervals for the past month sweepings on the plant Sphaeralcea emoryi in the vicinity of Tucson have given negative results so far as this insect is concerned. In the Salt River Valley, however, nymphs were found on this plant on March 12.

FOREST AND SHADE-TREE INSECTS

CANKERWORMS (Geometridae)

Connecticut. P. Garman (March 23): Eggs of Alsophila pometaria Harr. abundant in some apple orchards in New Haven County.

Connecticut, New Jersey, and New York. E. P. Felt (March 25): Fall cankerworms will be abundant in southwestern Connecticut, southeastern New York, and northern New Jersey. Not only were many eggs laid last fall but numerous moths are flying this spring. The spring cankerworm (Paleacrita vernata Peck) is also in flight and there will probably be a considerable number of these.

Iowa. H. E. Jaques (March 25): Spring cankerworms have been flying since March 15.

Missouri. L. Hasenan (March 24): There is promise of some trouble with this pest, at least through the central part of the State, the males having been flying now for 2 weeks, and during the past week females have been ovipositing.

Kansas. H. R. Bryson (March 26): According to E. G. Kelly, there are fewer cankerworms (both species) appearing on banded trees than for a number of years. Observations indicate a larger proportion of males than females.

Oklahoma. C. F. Stiles (March 24): The spring cankerworm has made its appearance in central Oklahoma and has been reported as feeding in large numbers on developing foliage of plum trees.

TENT CATERpillARS (Malacosoma spp.)

Vermont. H. L. Bailey (March 25): Forest tent caterpillar (M. disstria Hbn.) egg masses are very abundant on maple in vicinity of Bellows Falls, Springfield, and Middlebury. No observations at other points in the southern part of the State where infestation was heavy last summer.

Texas. R. K. Fletcher (March 5): Tents just started at College Station.

GYPSY MOTH (Forthetria dispar L.)

Rhode Island. A. E. Stene (March 27): Fewer gypsy moth egg clusters seen this year, but there are still enough to give considerable trouble the coming season.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Delaware. E. P. Felt (March 24): Bagworm is somewhat prevalent, though not excessively abundant, in the section around Wilmington.

Pennsylvania. R. M. Baker (March 24): The bagworm will be a serious pest in the western section of the State, centering around Allegheny County.

E. P. Felt (March 24): Bagworm is somewhat prevalent, though not excessively abundant, in southeastern Pennsylvania.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York. P. J. Farrott (March 19): Heavy infestation in occasional apple orchards in the western part of the State.

Pennsylvania. E. P. Felt (March 24): Somewhat abundant in sections about Philadelphia, being observed in numbers on gray birch and golden-twigged dogwood.

ASH

BANDED ASH BORER (Neoclytus carrea Say)

Nebraska. M. H. Swenk (March): Heavy infestations of ash trees by larvae and beetles of the banded ash borer were reported from Dakota and Saunders Counties during the first week in March.

BIRCH

BRONZE BIRCH BORER (Agrilus anxius Gory)

Delaware. E. P. Felt (March 24): The bronze birch borer was found in numbers on a badly infested ornamental birch at Wilmington.

ELM

A BARK BEETLE (Hylurgopinus rufipes Eich.)

Connecticut. B. J. Kaston (March 24): Although not as frequently encountered as hibernating larvae, many adults hibernate in special tunnels between the outer and inner layers of bark, or entirely in the outer layer. They

may usually be found in more or less healthy trees in the vicinity of trees from which they emerged in the fall. Counts made at intervals during the winter reveal a very high proportion surviving the winter. Material from South Windham showed a high percentage of parasitization by a braconid which is present as prepupae in cocoons lying in the larval tunnels.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Colorado. G. M. List (March 17): Infestations of the European elm scale are heavy in most sections of the State. Only about a 50 percent winter mortality is indicated, not sufficient to be much of a factor in reducing the population.

PINE

PALES WEEVIL (Hylobius pales Boh.)

New York. E. P. Felt (March 24): Specimens of small white pines infested with Pales weevil were received from East Norwich, accompanied by the statement that there was considerable injury.

A PINE NEEDLE MINER (Paraléchia pinifoliella Chamb.)

Connecticut. G. H. Flumb (March 17 and 24): Small slender brown larvae from 3 to 3.5 mm long were observed boring into the needles of pitch pine.

WHITE-PINE APHID (Cinara strobi Fitch)

New England. E. P. Felt (March 24): Eggs of the brown pine aphid (Dilachnus strobi) are rather common on the needles of white pine in southern New England. In addition, similar eggs, though presumably of a different species, were found on Scotch pine and red pine. Eggs are rather common on needles of white pine in the Wilmington, Del., area and in southeastern Pennsylvania and New York.

PINE BARK APHID (Pineus strobi Htg.)

New England and Pennsylvania. E. P. Felt (March 24): The pine bark aphid is somewhat noticeable, though not excessively abundant, on white pines in southern New England and also in the Philadelphia area.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Vermont. H. L. Bailey (March 25): Pine needle scale very abundant on white pines in Colchester, Chittenden County.

New York. R. E. Horsey (March 23): Considerable numbers of scales with live eggs found on Austrian and Lugo pines, and a few on Swiss Stone

pine(Pinus cembra) at Rochester. They showed no winter mortality. Probably about 5 percent of the scales have been removed from the trees by the ice, not enough to count as a control measure, as plenty of scales with live eggs were still on the trees.

Pennsylvania. E. F. Felt (March 24): The pine leaf scale was found occasionally abundant on pine needles, especially on Austrian pines, in the Philadelphia district.

Colorado. G. M. List (March 17): The pine leaf scale is unusually numerous on spruce and pines in most of the cities of the State. In some localities the infestation is quite heavy on forest trees.

PLANE TREE

GIANT APHID (Longistigma caryae Harr.)

Pennsylvania. E. F. Felt (March 24): Eggs of the giant aphid were rather common on the under side of plane tree branches in the Philadelphia district.

SYCAMORE LACEBUG (Corythucha ciliata Say)

Pennsylvania. E. F. Felt (March 24): Lacebugs are somewhat abundant under the bark scales of American plane trees in southeastern Pennsylvania.

POPLAR

POPLAR VAGABOND APHID (Mordwilkoja vagabunda Walsh)

New York. R. E. Horsey (March 23): Shrivelled and dried remnants of the vagabond gall (Pemphigus vagabundus Walsh) are quite conspicuous on a number of poplars at Rochester.

SPRUCE

SPRUCE GALL APHID (Chermes abietis L.)

Delaware. E. F. Felt (March 24): The spruce gall aphid is somewhat prevalent in the vicinity of Wilmington, some trees being badly infested.

Pennsylvania. E. F. Felt (March 24): The spruce gall aphid is somewhat prevalent in southeastern Pennsylvania and some trees are badly infested.

New York. F. J. Parrott (March 19): Nymphs of the spruce gall aphid moderately abundant in western New York.

TULIP TREE

TULIP TREE SCALE (Toumeyella liriodendri Gmel.)

New Jersey. E. I. Felt (March 24): The tulip tree scale is generally prevalent and abundant on tulip trees in many localities in northern New Jersey.

Mississippi. C. Lyle (March 25): Japanese magnolia twigs infested with the tulip tree scale were received on March 14 from a correspondent at Purvis, with the statement that "the bush was covered with this growth."

INSECTS AFFECTING GREENHOUSE
AND ORNAMENTAL PLANTS

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Michigan. Ray Hutson (March 25): A few twigs of acacia from greenhouses in Detroit infested with I. purchasi were brought in the other day.

Florida. E. W. Berger and G. B. Merrill (March 23): Cottony-cushion scale seems to build up during the winter in many localities, but the Vedalia (Rodolia cardinalis Muls.), either naturally or reintroduced, effects a speedy control as the weather warms up in the spring.

Mississippi. G. L. Bond (March 25): There is quite a heavy infestation of the cottony-cushion scale at Pascagoula. Vedalia beetles have been colonized on the properties and are expected to clean up the scale this spring and summer.

Arizona. C. D. Lebert (March 24): Very few calls have come to our attention in the Phoenix district this spring. Two or three residences have reported this pest on pittosporum, a landscape shrub which seems to be the most favorable host in the Salt River Valley.

OLIVE SCALE (Parlatoria oleae Colv.)

Arizona. C. D. Lebert (March 24): Several infestations of the olive parlatoria scale were noticed on roses, privets, oleanders, and jasmine on the university campus at Tucson on March 20 and 21. The scale has been kept well under control by oil sprays in the past.

CHAFF SCALE (Parlatoria pergandii Const.)

Mississippi. C. Lyle (March 25): Specimens of the chaff scale collected on March 16 from a property at Gulfport were sent to this office.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York. R. E. Horsey (March 23): Oyster-shell scale with numerous live white eggs was found on several lilacs at Rochester. No sign of winter mortality. The winter was not exceptionally cold, 3° below zero being the lowest. The cold was continuous with few thawing days. No sign of scale forced off by the ice storm.

ACACIA

A LEAFHOPPER (Diceraneura kunzei Gill.)

California. H. J. Ryan (March 26): On March 16 a leafhopper, D. kunzei, was taken on silver wattle (Acacia decurrens dealbata) located in an orange grove near San Dimas. Judging from the extent of the injury, the infestation has been quite heavy on the acacia trees but the leafhoppers are not very abundant now. This leafhopper was first collected on silver wattle growing in Altadena in November 1932. The infestation at that time was light but evidences of injury indicated that the leafhoppers had at one time been very numerous. The orange trees adjacent to the two silver wattles at San Dimas show typical leafhopper damage and the extent of damage decreases, especially on the fruit (navels), as the distance from the acacia trees increases, and is noticeable for about 8 or 10 rows from the acacias.

ARBORVITAE

ARBORVITAE APHID (Lachnus thujaefilina Del Guer.)

Louisiana. B. A. Osterberger (March 21): Many aphids have been noticed around Baton Rouge on arborvitae.

BOXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Labou.)

Delaware and Pennsylvania. E. F. Felt (March 24): The box leaf midge is locally abundant on ornamental box in the Philadelphia district and in the vicinity of Wilmington.

CAMELLIA

CAMELLIA SCALE (Lepidosaphes camelliae Holte)

Mississippi. C. Lyle (March 25): The camellia scale has been reported as fairly abundant in Pike and Lincoln Counties by Inspector N. D. Peets. Heavy infestations are present at Moss Point, according to Inspector G. L. Bond. Specimens of this scale from Canton and Gulfport have been received at this office.

DEODAR

DEODAR WEEVIL (Iissodes deodarae Hopk.)

Mississippi. C. Lyle (March 25): Several specimens of the deodar weevil and many injured twigs of Cedrus deodar have been sent to this office.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Const.)

New York. R. E. Morsey (March 23): Live eggs found under scale from badly infested Euonymus radicans vegetus.

Delaware and Pennsylvania. E. F. Felt (March 24): The euonymus scale is somewhat generally prevalent on climbing euonymus in eastern Pennsylvania and around Wilmington, Del.

Mississippi. H. D. Peets (March 25): This scale is fairly abundant on euonymus in Lincoln, Coahoma, and Pike Counties.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips gladioli N. & S.)

Mississippi. C. Lyle (March 25): Specimens of thrips on gladioli bulbs were received on March 14 from a correspondent at Quitman.

HOLLY

FUTNAM'S SCALE (Aspidiotus ancylus Putn.)

Delaware and Pennsylvania. E. F. Felt (March 24): Putnam's scale is found in small numbers on American holly in the Philadelphia district and at Wilmington.

OLEANDER

OLEANDER CATERPILLAR (Syntomeida epilais Walk.)

Florida. J. R. Watson (March 19): The oleander caterpillar is doing considerable damage in the central and southern parts of the State. In the more northern sections it was exterminated by the freeze of December 1934 and has not yet reinfested the district.

PITIOSPORUM

AN APHID (Aphididae)

Louisiana. B. A. Osterberger (March 21): A green undetermined aphid is found to be very numerous on pittosporum stunting the young twigs.

RHODODENDRON

RHODODENDRON LACEBUG (Stenhanitis rhododendri Horv.)

New England, New York, and Pennsylvania. E. F. Felt (March 24): The rhododendron lacebug is somewhat abundant on rhododendrons in southern New England, New York State, and eastern Pennsylvania, being most numerous on plants in sunny locations.

STOCKS

DIAMOND-BACK MOTH (Plutella maculipennis Curt.)

Massachusetts. A. I. Bourne (March 9): Larvae and moth sent in by a florist in Holyoke on March 5 with the report that the larvae were doing considerable damage to stocks in his greenhouse. (Det. C. Heinrich.)

INSECTS ATTACKING MAN AND
DOMESTIC ANIMALS

CATTLE

TRUE SCREW WORM (Cochliomyia americana C. & P.)

General. F. C. Bishop (March 25): Field observations indicate that the screw worm fly (C. americana) was able to overwinter only as far north as Dixie, Gilchrist, Alachua Putnam, and Flagler Counties in north-eastern Florida. A few infestations of animals have occurred in counties along the Georgia-Florida line, indicating that there has already been some migration of the pest from the area where it overwintered. In Texas the fly overwintered only as far north as Val Verde, Kinney, Maverick, Uvalde, Frio, Atacosa, Wilson, Gonzales, Wharton, and Brazoria Counties. Spring outbreaks have been reported from Uvalde and Val Verde Counties. Phenological data indicate that vegetation is advancing at Uvalde from about a week to 10 days earlier than normal, affording some evidence that trouble from screw worms may begin earlier than usual in this section.

CATTLE GRUBS (Hypoderma spp.)

Alabama. J. M. Robinson (March 21): Ox warble larvae were pupating the latter part of February and early in March in Auburn.

Mississippi. M. Brunson (March 21): In Noxubee, Winston, and Kemper Counties an examination of 265 head of cattle showed only 3 infested animals. Stockmen stated that their animals were heavily infested during the winter but most of the grubs had now dropped to the ground. Ox warble flies were observed about March 14 in Coahoma County.

North Dakota. F. D. Butcher (March 21): Animals being killed at a packing plant at West Fargo carry a low infestation of cattle grubs. Observations made by a practicing veterinarian in the area west of Devils Lake indicate that infestation of cattle grubs in that area is spotted, with some herds practically free and others carrying a normal number or more this year. In the southeastern part of the State some calves brought in for 4-H Club boys are showing very heavy infestations, with a few records of as high as 50 grubs per animal. These calves were shipped in either from Alberta or Saskatchewan and are more heavily infested than are feeding animals originating in the same areas.

Missouri. L. Haseman (March 24): Generally throughout the State this past winter we have had the smallest number of ox warbles in the backs of cattle that we have observed for several years. Only an occasional herd has been reported as showing severe infestation.

Arkansas. W. J. Spicer (March 25): Cattle owners in Pulaski, Lonoke, and White Counties report heavy infestations of "volves" in the backs of cattle this year. They say they have some every year, but that this year there are more than usual. One owner of El Paso, White County, has 200 head of cattle and reports 85 percent of them infested.

BUFFALO GNATS (Eusimulium spp.)

Mississippi. M. Brunson (March 25): Stockmen in the Delta section state that up to the present time they have not been troubled with buffalo gnats.

H. L. Douglass (March 25): In the vicinity of Charleston the week of March 15 a few buffalo gnats, probably E. pecuarum Riley, were noticed near the Tallahatchie River.

SPINOSE EAR TICK (Ornithodoros magnini Duges)

Kansas. H. R. Bryson (March 26): Numbers of reports of the spinose ear tick in western Kansas.

HOUSEHOLD AND STORED-PRODUCTS INSECTS

TERMITES (Reticulitermes spp.)

Pennsylvania. A. B. Champlain (March 13): Winged termites, R. flavipes Kol., are swarming in and about dwellings. Called into several places in the city for consultation.

District of Columbia. R. A. St. George (March 25): The first flight of the season of the subterranean termite (R. flavipes) was observed out-of-doors today in Washington, D. C. A swarm of considerable size began about 9:30 a.m. and continued at intervals for nearly an hour. Sparrows and small ants captured many of them before they had either flown away or had shed their wings and could reenter the ground. This species has been emerging inside of heated buildings at intervals during the past month.

West Virginia. L. W. Peairs (March 28): My first record of termites is from Clarksburg, where they emerged on March 22 in a heated basement.

Georgia. C. H. Alden (March 15): Swarms of termites were observed at Cornelia on March 15.

Florida. J. R. Watson (March 19): Termites have been swarming for some weeks in about the usual numbers.

Alabama. J. M. Robinson (March 31): Termites have been swarming all over Alabama during March.

Mississippi. C. Lyle (March 25): Many complaints regarding damage by termites have been received from all parts of the State during the past month.

Louisiana. B. A. Osterberger (March 31): Termites have been swarming almost the entire month of March.

Missouri. L. Haseman (March 24): We have been getting the usual number of complaints from home owners.

Kansas. H. R. Bryson (March 26): Termites are active and a few swarms have been observed. About the usual number of reports of infestations have been received.

Texas. F. L. Thomas (March 28): Termites reported from Farmersville on March 23.

ANTS (Formicidae)

Alabama. J. M. Robinson (March 21): Fire ants (Solenopsis xyloni McCook) are causing considerable damage to truck crops in Baldwin and Mobile Counties. In Baldwin County the colonies have developed sufficiently to be of considerable concern. Argentine ants (Iridomyrmex humilis Mayr) are active in various cities in the State.

Mississippi. C. Lyle (March 25): Many complaints of the Argentine ant have been received, especially from the localities where no control measures were taken during the past year. A resident at Jackson reported damage to clothing by the fire ant (S. xyloni). Inspector H. Gladney states that this ant has been observed around rose bushes in Biloxi. Inspector G. L. Bond reports that he has had several complaints of damage by this ant in March.

Nebraska. M. H. Swenk (March 21): A Douglas County correspondent reported the infestation of a residence basement with the basement ant (Lasius interjectus Mayr) during the first week in March.

A SPIDER BEETLE (Ptinus tectus Boieldieu)

Washington. M. H. Hatch (March 20): This insect, originally found in warehouses on the Seattle water front, is becoming more widely distributed in the city. This winter specimens have occurred in dried fruit obtained from a local grocery store and in a dwelling house north of the city.